WHAT IS CLAIMED IS:

1. A semiconductor device comprising:

a semiconductor film on an insulating surface, said semiconductor film including:

a first crystalline semiconductor layer comprising germanium; and

a second crystalline semiconductor layer on and in contact with the first crystalline semiconductor layer.

2. A device according to claim 1,

wherein the second crystalline semiconductor layer includes silicon.

3. A device according to claim 1,

wherein each of the first and second crystalline semiconductor layers is crystallized by a laser light.

4. A device according to claim 1,

wherein the semiconductor device is one selected from the group consisting of a mobile telephone, a video camera, a mobile information terminal, a television receiving equipment, an electronic book, a personal computer, a DVD player, and a digital still camera.

5. A method of manufacturing a semiconductor device, said method comprising the steps of:

forming a first amorphous semiconductor film comprising germanium on

an insulating surface;

forming a second amorphous semiconductor film on and in contact with the first amorphous semiconductor film;

crystallizing each of first and second crystalline semiconductor films by irradiating with a laser light.

6. A method of manufacturing a semiconductor device, said method comprising the steps of:

forming at least an electrode on an insulating surface;

forming an insulating film covering the electrode;

forming a first amorphous semiconductor film comprising germanium on the insulating film;

forming a second amorphous semiconductor film on and in contact with the first amorphous semiconductor film;

crystallizing the each of the first and second amorphous semiconductor films by irradiating with a laser light.

7. A method according to claim 5,

wherein the second amorphous semiconductor film includes silicon.

8. A semiconductor device comprising:

a crystalline semiconductor film;

a channel region formed in the crystalline semiconductor film;

said crystalline semiconductor film comprising:

a first crystalline semiconductor layer including silicon and

germanium;

a second crystalline semiconductor layer including silicon,

wherein each of the first and second crystalline semiconductor layers includes nitrogen and carbon at concentrations in a rage of less than $5 \times 10^{18}/cm^3$ and oxygen at a concentration in a range of less than $1 \times 10^{19}/cm^3$.

9. A semiconductor device comprising:

a crystalline semiconductor film;

a channel region formed in the crystalline semiconductor film;

said crystalline semiconductor film comprising:

a first crystalline semiconductor layer including silicon and an element having a larger atomic radius than silicon;

a second crystalline semiconductor layer including silicon,

wherein each of the first and second crystalline semiconductor layers includes nitrogen and carbon at concentrations in a rage of less than $5 \times 10^{18}/cm^3$ and oxygen at a concentration in a range of less than $1 \times 10^{19}/cm^3$.

10. A device according to claim 8,

wherein the first crystalline semiconductor layer has a thinner thickness than the second crystalline semiconductor layer.

11. A device according to claim 8,

wherein the first crystalline semiconductor layer is formed on an insulating surface.

12. A device according to claim 8,

wherein the channel region in the crystalline semiconductor film has a metal element at a concentration in a range of $1 \times 10^{17}/cm^3$ or less.

13. A device according to claim 12,

wherein the metal element is at least one selected from the group consisting of Fe, Ni, Co, Ru, Rh, Pd, Os, Ir, Pt, Cu and Au.

14. A device according to claim 8,

wherein the crystalline semiconductor film has a thickness in a range of 20 nm to 100 nm.

15. A method of manufacturing a semiconductor device, said method comprising the steps of:

forming a first amorphous semiconductor film including silicon and germanium on an insulating surface;

forming a second amorphous semiconductor film including silicon on the first amorphous semiconductor film;

introducing an element capable of promoting crystallization of silicon into the first amorphous semiconductor film or the second amorphous semiconductor film;

crystallizing each of the first and second amorphous semiconductor films by heating to form a first crystalline semiconductor film and a second crystalline semiconductor film, respectively.

16. A method of manufacturing a semiconductor device, said method comprising the steps of:

forming a first amorphous semiconductor film including silicon and a element having a larger atomic radius than silicon on an insulating surface;

forming a second amorphous semiconductor film including silicon on the first amorphous semiconductor film;

introducing an element capable of promoting crystallization of silicon into the first amorphous semiconductor film or the second amorphous semiconductor film;

crystallizing each of the first and second amorphous semiconductor films by heating to form a first crystalline semiconductor film and a second crystalline semiconductor film, respectively.

17. A method according to claim 15, further comprising the step of:

irradiating with a laser light to obtain of a higher crystallinity of each of the first and second crystalline semiconductor films after the crystallizing step.

18. A method according to claim 15, further comprising the step of:

irradiating with a light from one selected from the group consisting of a halogen lamp, a xenon lamp, a mercury lamp, a metal halide lamp as a light source to obtain of a higher crystallinity of each of the first and second crystalline semiconductor films after the crystallizing step.

19. A method according to claim 15,

wherein each of the first and second semiconductor films is formed by a

plasma CVD apparatus,

wherein a turbo molecular pump is used in an exhaust means connected to a reaction chamber of the plasma CVD apparatus.

20. A device according to claim 15,

wherein the element is at least one selected from the group consisting of Fe, Ni, Co, Ru, Rh, Pd, Os, Ir, Pt, Cu and Au.

21. A device according to claim 15,

wherein the first amorphous semiconductor film has a thinner thickness than the second amorphous semiconductor film.

22. A device according to claim 15,

wherein a total thickness of the first and second amorphous semiconductor films is in a range of 20 nm to 100 nm.

23. A method according to claim 6,

wherein the second amorphous semiconductor film includes silicon.

24. A device according to claim 9,

wherein the first crystalline semiconductor layer has a thinner thickness than the second crystalline semiconductor layer.

25. A device according to claim 9,

wherein the first crystalline semiconductor layer is formed on an

insulating surface.

26. A device according to claim 9,

wherein the channel region in the crystalline semiconductor film has a metal element at a concentration in a range of 1 x $10^{17}/cm^3$ or less.

27. A device according to claim 26,

wherein the metal element is at least one selected from the group consisting of Fe, Ni, Co, Ru, Rh, Pd, Os, Ir, Pt, Cu and Au.

28. A device according to claim 9,

wherein the crystalline semiconductor film has a thickness in a range of 20 nm to 100 nm.

29. A method according to claim 16, further comprising the step of:

irradiating with a laser light to obtain of a higher crystallinity of each of the first and second crystalline semiconductor films after the crystallizing step.

30. A method according to claim 16, further comprising the step of:

irradiating with a light from one selected from the group consisting of a halogen lamp, a xenon lamp, a mercury lamp, a metal halide lamp as a light source to obtain of a higher crystallinity of each of the first and second crystalline semiconductor films after the crystallizing step.

31. A method according to claim 16,

wherein each of the first and second semiconductor films is formed by a plasma CVD apparatus,

wherein a turbo molecular pump is used in an exhaust means connected to a reaction chamber of the plasma CVD apparatus.

32. A device according to claim 16,

wherein the element is at least one selected from the group consisting of Fe, Ni, Co, Ru, Rh, Pd, Os, Ir, Pt, Cu and Au.

33. A device according to claim 16,

wherein the first amorphous semiconductor film has a thinner thickness than the second amorphous semiconductor film.

34. A device according to claim 15,

wherein a total thickness of the first and second amorphous semiconductor films is in a range of 20 nm to 100 nm.